



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,702	02/02/2004	Lev Korzinov	16491-022001	1300

20985 7590 12/01/2008  
FISH & RICHARDSON, PC  
P.O. BOX 1022  
MINNEAPOLIS, MN 55440-1022

EXAMINER
----------

BERTRAM, ERIC D

ART UNIT	PAPER NUMBER
----------	--------------

3766

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

12/01/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/770,702	<b>Applicant(s)</b> KORZINOV ET AL.	
	<b>Examiner</b> Eric D. Bertram	<b>Art Unit</b> 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-18, 26, 28-30, 32-39, 41, 43-58 and 61-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-18, 26, 28-30, 32-39, 41, 43-58 and 61-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/19/08, 9/30/08</u>  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 8/19/2008 regarding claims 15, 39 and 61-64 have been fully considered but they are not persuasive. Applicant argues that Nau does not disclose determining a merit of the information based on both the severity of the condition and the quality of the information describing the event. However, if the information is of a quality that is so poor that it cannot be read or used by the processor, then the merit of the information (i.e., whether the information describes an arrhythmic event) will not be able to be determined. Clearly, the quality of the information must be of a quality that is usable by the processor; as such, determining a merit of the information is inherently based on the information having a certain degree of quality. It is important to realize that the claims do not first require "determining a quality of the information describing the event" prior to determining the merit. Instead, determining the merit is merely *based* on the quality of the information, which is clearly the case in Nau.

2. In the same vein, regarding new claims 61-64, it is not required by the claims to "determine the amount of noise in the information" or to "determine/detect a signal dropout during the event." Instead, determining a merit is merely based on an amount of noise in the information or based on a signal dropout. Clearly, if the amount of noise is of a level that makes the signal unusable by the processor, a merit will be unable to be determined. Also, if a signal dropout occurs during the determination of a merit, the determination will be unable to occur because there is no signal to assess. Determining

Art Unit: 3766

a merit is inherently based on there being a sufficiently low amount of noise and the presence of a signal in order to occur.

3. The 35 USC 102(b) rejections of claims 15, 39 and 61-64 are still considered proper.

4. Applicant's arguments, filed 8/19/08, with respect to the rejection(s) of claim(s) 13, 14, 16-18, 26, 28-30, 32-38, 41 and 43-58 under 35 USC 102(b) as being anticipated by Nau have been fully considered but are moot in view of the new ground(s) of rejection, necessitated by applicant's amendment.

#### ***Information Disclosure Statement***

5. The information disclosure statements (IDS) submitted on 8/19/08 and 9/30/08 were filed in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

#### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 3766

7. Claims 15, 39 and 61-64 are rejected under 35 U.S.C. 102(b) as being anticipated by Nau et al. (US 5,732,708, hereinafter Nau).

8. Nau discloses a system and method for storing EGM data. Specifically, Nau discloses receiving a cardiac biological signal that includes information describing events (Col. 7, lines 57-59). The events comprise periods of time when the information content of the EGM signal is of increased relevance to a particular purpose. In this case, the content is an arrhythmic event, of any length, that triggers the storage of the EGM signal (Col. 8, lines 57-59). The merit of the event is then determined by whether or not the event is actually an arrhythmia needing correction. As such the merit of the information is based on the severity of the cardiac condition; an event requiring therapy is inherently more severe than one that is self-correcting. Furthermore, if the information is of a quality that is so poor that it cannot be read or used by the processor, then the merit of the information (i.e., whether the information describes an arrhythmic event) will not be able to be determined. Clearly, the quality of the information must be of a quality that is usable by the processor. As such, determining a merit of the information is inherently *based on* the information having a certain degree of quality. If the event is not an arrhythmia needing correction, then the information describing the event is discarded (Col. 9, lines 53-59). Therefore, the information is inherently not qualified to be stored. Otherwise, the information that needs to be corrected by a therapy is stored and then telemetrically transmitted to a remote medical receiver (Col. 13, lines 5-7).

Art Unit: 3766

9. Regarding claims 61-64, it is not required by the claims to “determine the amount of noise in the information” or to “determine/detect a signal dropout during the event.” Instead, determining a merit is merely *based on* an amount of noise in the information or based on a signal dropout. Clearly, if the amount of noise is of a level that makes the signal unusable by the processor, a merit will be unable to be determined. Also, if a signal dropout occurs during the determination of a merit, the determination will be unable to occur because there is no signal to assess. Determining a merit is inherently based on there being a sufficiently low amount of noise in the signal and the actual presence of a signal in order to occur.

10. Claims 13-18, 26, 28-30, 32-39, 41, 43-58 and 61-64 are rejected under 35 U.S.C. 102(a,e) as being anticipated by Dirnberger et al. (US 6,589,187, hereinafter Dirnberger). Dirnberger discloses a system and method for prioritizing cardiac information, specifically an EGM. Dirnberger discloses an IMD that receives and monitors a cardiac biological signal that includes information describing events. The events are of increased relevance to a physician and are demarcated by periods of time that include normal heart rhythm, and are of no particular importance (Col. 4, lines 23-44). Specifically, these events are arrhythmic events that are separately classified in five categories as VT, AT, AF, Afl, or 1:1 (Col. 6, lines 52-67). Up to 16 of these events are temporarily stored in the memory of the IMD. Concurrently, all of these different events are assigned a merit of there information for ranking purposes within each category. The merit is based on the severity of the cardiac condition in that VT has a higher priority than the atrial events, and one of ordinary skill in the art knows that

Art Unit: 3766

ventricular arrhythmias are more dangerous than atrial events (Col. 10., lines 1-11).

The merit is also based on certain qualities of the events, such as the rate of the event and the length of the event (Col. 9, lines 40-56). The longest, fastest and most recent events are the highest priority for each category. As such, there exists 5 subsets of the events, wherein each subset is a category having separate merit criteria (i.e., arrhythmia type, length, rate, time occurred). As described by Dirnberger when 16 events are temporarily stored and additional events occur, then certain events that fail to be the most meritorious in their respective category will be discarded (Col. 9, line 58-Col. 10, line 27). In addition, it may be necessary to compare the most meritorious between events to determine which event should be discarded (Col. 10, lines 1-11). Furthermore, the most meritorious in each category will be transmitted to a remote medical receiver for review by the physician (Col. 11, lines 55-67).

11. Regarding claims 61-64, it is not required by the claims to “determine the amount of noise in the information” or to “determine/detect a signal dropout during the event.” Instead, determining a merit is merely *based on* an amount of noise in the information or based on a signal dropout. Clearly, if the amount of noise is of a level that makes the signal unusable by the processor, a merit will be unable to be determined. Also, if a signal dropout occurs during the determination of a merit, the determination will be unable to occur because there is no signal to assess. Determining a merit is inherently based on there being a sufficiently low amount of noise in the signal and the actual presence of a signal in order to occur.

***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric D. Bertram whose telephone number is 571-272-3446. The examiner can normally be reached on Monday-Thursday from 9:30-6 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl H. Layno can be reached on 571-272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 3766

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carl H. Layno/  
Supervisory Patent Examiner, Art Unit 3766

/E. D. B./  
Examiner, Art Unit 3766